

For Branch Chief meeting on ST12 – What we want to accomplish (DRAFT)

What we are concerned about/ where we are having technical disagreement:

- The estimates of LNAPL mass and extent were under- represented, and the SEE system was under-designed to address the actual situation.
- There may still be as much LNAPL mass remaining in in the subsurface as was removed by the SEE system to date, Amec/AF has acknowledged this in their EBR workplan.
- Enhanced Bioremediation (EBR) is appropriate to degrade dissolved contaminants, but not an appropriate technology to address large quantities of LNAPL
- Amec is redefining “residual LNAPL” to include LNAPL that was never treated with steam as required by the 2013 RODA.
- The attempt now to use EBR to degrade virgin untreated LNAPL represents a fundamental change to the remedy. EBR and ozonation to treat LNAPL was evaluated as alternative 4 in the Focused Feasibility Study and rejected due to uncertain ability to meet RAOs. The FFS states that a pilot test would be required before they could implement Alternative 4
- The RD/RA workplan states that decisions would be made jointly in the field between Amec and Terra therm, however we understand Terratherm did not agree with the shutdown of the extraction system while the site was still hot and contaminants were mobile, but were forced to comply with Amec’s wishes.
- The multi-million dollar SEE system was dismantled, despite objections from the agencies that shutdown was premature, and without proper notification to the agencies that they were actually dismantling it, and before agencies could act to stop them.
- While the Soil Vapor Extraction (SVE) system was reconnected and is removing 3000+ pounds per day of vapors, it is only operating in the vadose zone above the water table. It is not extracting any liquids, and it is not providing any hydraulic containment of the groundwater
- The subsurface is still near boiling temperatures, and fluids are very hot and very mobile and will spread once the cone of depression in the water table from the SEE extraction system returns to pre-SEE conditions and the groundwater gradient is again flowing to the east, hot fluids including LNAPL and dissolved BTEX will spread under the airport tarmac and beyond.

What we want AF to do:

- Stop dismantling of the SEE System, stop construction of the EBR system
- Install pumps in wells and appropriately sized treatment system and resume groundwater extraction system for hydraulic containment and continued removal of LNAPL and dissolved phase BTEX constituents.
- Characterize the full extent of the LNAPL and Dissolved phase groundwater plumes:
 - a) Soil cores to evaluate residual LNAPL within the area treated by steam
 - b) Soil cores and groundwater wells to evaluate extent of LNAPL and dissolved phase plume outside of the area treated by steam
 - c) Step-out cores until full extent of LNAPL and dissolved phase plume is defined
- Once characterized, a meeting with all parties, including Terratherm to discuss the most appropriate next steps, whether EBR or additional SEE.

